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THE BILL MARKET: ITS NATURE AND STRUCTURE

Treasury bills play a key role in the money market. This article tells how they are issued, describes the market, and gives the pattern of ownership.

A MID-SEASON REPORT FROM THE FARM

Growing weather has been erratic and local markets unstable. But, with diversified farming, the season's final returns may be better than these conditions seemed to indicate.

CURRENT TRENDS

The nation has made up the ground lost during the recession but in Pennsylvania, employment is not yet back to 1953 levels.

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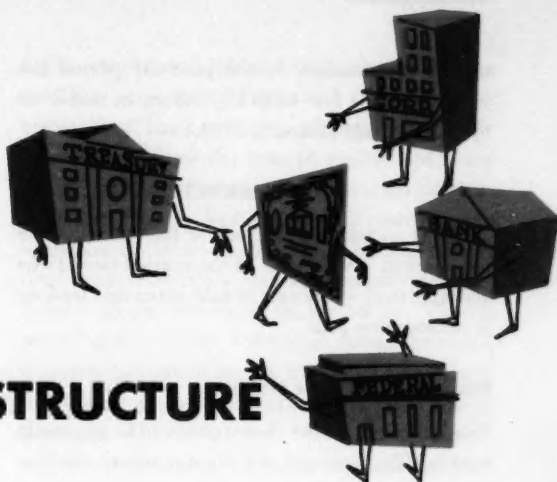
upon request to the Department of Research,

Federal Reserve Bank of Philadelphia,

Philadelphia 1, Pa.

THE BILL MARKET:

ITS NATURE AND STRUCTURE



This article is about bills — not the kind the postman delivers in quantity the first of the month, but three-month marketable bills issued weekly by the United States Treasury. It deals primarily with the nature of the market and the pattern of ownership.

The Treasury bill has played a key role in the post-war money market — a role somewhat similar to that of the call-loan for several decades prior to the Great Depression. Many commercial banks use Treasury bills in adjusting their reserve positions; other institutions put temporary funds into bills and dispose of them when in need of cash; and the Federal Reserve System usually buys or sells bills when it wants to inject funds into or siphon them out of the market.

The Treasury bill first came into use in December 1929. Before that time the Treasury had used certificates of indebtedness, usually maturing in one to three months, to counteract the impact of periodic tax and bond receipts on the money market. Treasury authorities stated that the bill would have important advantages over the certificate of indebtedness from the standpoint of

managing the public debt. Advantages given were that being sold on a discount basis, it would relieve the Treasury of the difficult task of trying to adjust the interest rate on new issues to changing money-market conditions; there would be less tendency for the price to fall below the issue price to the detriment of Government credit; and it would provide a more liquid type of investment for the temporary funds of banks and other institutions.

The Treasury bill soon displaced the certificate as the primary method of offsetting the impact of Treasury operations on the money market, but the amount outstanding prior to World War II rarely exceeded \$2½ billion. The market rate on the three-month bill was exceptionally low in the latter part of the thirties. From 1938 to 1940, the rate was typically below 1/10 of 1 per cent, primarily because of the tax-exempt feature and the large volume of excess reserves held by commercial banks. Commercial banks were the principal owners of bills in the pre-war period.

Deficit financing in World War II brought a tremendous increase in Treasury bills as well as other types of Treasury obligations. The amount

of bills outstanding in the post-war period has ranged from a low of \$11½ billion in mid-1949 to a high of \$22 billion in 1954.

THE MARKET

First, let us take a brief look at the nature of the bill market. Two facets of the market need to be distinguished — the sale of new issues and trading in outstanding bills.

Marketing of new issues

New offerings of the three-month bills are made weekly. The Treasury usually announces the new offering on Thursday, a week in advance of issue. Subscriptions or tenders are received by the Federal Reserve Banks until 2 p.m. on the following Monday.

Bills, unlike other marketable securities issued by the Treasury, are sold on a discount basis — that is, below par or face value. For example, bills bought at \$99.532 will pay the holder \$100 at maturity three months hence, thus providing an interest return equivalent to 1.85 per cent a year. There are two types of subscriptions — those submitted on a competitive and those on a non-competitive basis. Subscriptions received by the Reserve Banks are transmitted to the office of the Secretary of the Treasury where approximately the amount of the announced offering is allocated among subscribers. Non-competitive subscriptions — in recent years up to a maximum of \$200,000 from a single subscriber — are allotted in full. The remainder is awarded to the highest bidders among those entering subscriptions on a competitive basis. Non-competitive subscriptions are awarded at the average price for accepted competitive bids. The bulk of the subscriptions is on a competitive basis. Small banks and business corporations frequently submit non-competi-

tive bids to be certain of receiving the amount desired at the average price rather than run the twin danger of paying more than necessary or of not bidding enough to receive the amount wanted.

Subscribers may pay for their new bills with either cash or maturing Treasury bills. Holders other than the Federal Reserve System, however, usually redeem their maturing bills and pay cash for the new issue. The Federal Reserve allows its maturing bills to run off, i.e., redeems them for cash, when it wants to absorb funds; otherwise its maturing bills are exchanged for the new issue.

The Treasury also issues at times special tax anticipation bills which are accepted in payment of Federal taxes. Commercial banks are usually permitted to pay for these bills purchased for their own account and for their customers, by crediting the Treasury's tax and loan account. Tax anticipation bills are usually issued in the fall when Treasury expenditures exceed receipts, and mature in the first part of the following year when receipts exceed expenditures. The net effect is to siphon funds into the Treasury when the Federal Government is paying out more than it is taking in. In the following spring, the use of these bills to pay taxes reduces the Treasury's cash intake while the redemption of bills not submitted in payment of taxes enlarges expenditures when they are substantially below receipts. This helps to smooth out the seasonal impact of Treasury operations on the money market.

Outstanding bills

There is a broad market for the large volume of Treasury bills outstanding. The bill market, as any other, consists of three principal groups: buyers, sellers, and dealers who bring the two together. Purchases and sales are made at a price which reflects the relationship between the supply

of bills offered and the demand for them.

Actually, there is no single market place where bills are bought and sold, as in the case of an organized stock exchange. Bills are traded in the "over-the-counter" market, where the bulk of the transactions is executed by a relatively small number of dealers in securities. The term "over-the-counter" market reputedly originated many years ago when it was common practice for the buyer to walk into the dealer's place of business where the seller, upon receiving payment, handed the buyer the securities over the counter.

Buyers and sellers. Who are the principal buyers and sellers of Treasury bills? Both sales and purchases originate mainly with three groups: commercial banks, non-financial institutions, and the Federal Reserve System.

Commercial banks have long followed the policy of keeping a part of their resources in liquid assets — assets that are readily marketable with a minimum loss of principal. The bulk of commercial bank liabilities is payable on demand or short notice, and banks are required by law to maintain a certain minimum reserve against their deposits. A secondary reserve of liquid assets can be converted into cash readily to meet drains on reserve positions.

Many factors affect bank reserve positions — deposit shifts among banks, Treasury operations, inflow and outflow of currency, gold imports and exports, and Federal Reserve actions. A considerable portion of the checks drawn by customers on their banks shows up in other banks, resulting in a shift of deposits and reserves from the former to the latter when the checks are collected. Transfers of Treasury deposits from commercial banks to the Reserve Banks draw down bank reserves; Treasury disbursements tend to restore them. Both check collections and Treasury operations are constantly shifting funds among banks, some

banks gaining and others losing reserves. There are other important forces which increase or decrease total bank reserves, although ordinarily they do not affect the reserve position of every bank. An inflow of currency from circulation, gold imports, and Federal Reserve purchases of securities or advances to member banks increase total bank reserves; a reverse movement of these factors drains reserves from the banks. The reserve balance of an individual bank, therefore, is constantly changing as a result of the many day-to-day operations that influence its reserve position.

The ebb and flow of funds through bank reserve accounts pose a problem for the banker — what to do with excess reserves that he may have for only a short time, and how to be in a position to meet temporary deficiencies in his reserve account. Excess reserves earn no income. On the other hand, if excess reserves are invested in securities that fluctuate in price, the banker would incur a loss if forced to sell for less than the purchase price to meet a reserve deficiency. The Treasury bill offers a partial solution, at least, to this problem. It provides some return, although the yield is usually lower than on longer maturities, and a bill can be sold at any time with a minimum risk of loss from a price change.

A second major source of buying and selling is from the "all other" group as reported in the Treasury survey of the ownership of Government securities. This group includes all owners except the Federal Reserve System, commercial banks, savings banks, U.S. Government investment accounts, and insurance companies. Although a breakdown within this group is not available, fragmentary data indicate important holders to be large business corporations, foreign institutions (especially central and commercial banks), and state and local governments. Large business

corporations are frequently in possession of substantial amounts of funds of a temporary nature. The flow of receipts is usually not geared closely to day-to-day expenditures, resulting in temporary excesses of receipts and vice versa. The corporation must either accumulate excess receipts to meet periods of heavy expenditures such as interest, dividend, and tax payments or borrow during periods of excess expenditures, repaying from the excess receipts of subsequent periods. Proceeds from the sale of longer-term securities also provide funds temporarily pending actual disbursement on the project being financed by the securities flotation. The latter is frequently an important source of demand from state and local authorities as well as large corporations. Foreign institutions, especially central banks, commercial banks, and other institutions engaged in financing international trade, maintain dollar balances in this country. Excesses over minimum working balances are frequently invested in Treasury bills and other short-term securities.

The Federal Reserve System is another important buyer and seller of bills. The purchase and sale of Government securities in the market — primarily bills — is the principal tool used by the System to put funds into or take funds out of the market. The System buys when it wants to put additional funds into the market; it sells when it wants to absorb funds. Changes in System holdings, therefore, reflect the immediate goal of credit policy, and not the amount of funds it has available to invest.

Dealers. The job of bringing buyers and sellers together is performed primarily by dealers. A dealer, in contrast to a broker, buys and sells securities for his own account as well as executes orders for his customers. He helps to make a market by carrying an inventory — a “portfolio” — of securities and standing ready to buy or sell

at quoted prices. A principal source of income to the dealer is the spread between his selling (asked) price and his buying (bid) price.

A relatively small number of dealers, most of them specializing in Government securities, form the core of the dealer group. Most of these firms have their head offices in New York City, with branch offices in principal cities throughout the country. Head offices and branch offices are connected by private wire, providing a dealer network which funnels buying and selling orders from all over the nation — even from foreign countries — into New York City where the bulk of the orders is executed. The bill market is a negotiated market, and most transactions are consummated over the telephone.

The bill rate

Treasury bills, as any commodity, are bought and sold at a price. Market quotations, however, are in terms of the rate at which the bill is discounted. The bid quotation is the price dealers are willing to pay; the asked quotation is the price at which they are willing to sell to customers. Naturally, the bid or buying price is lower than the asked or selling price. In terms of the rate of discount, however, the bid quotation is higher than the asked. To illustrate: The recent dealer quotations for a bill maturing in 90 days were 1.89 bid and 1.85 asked. This means that the dealer was offering to pay \$99,527 for a \$100,000 bill maturing in 90 days and offering to sell at \$99,537. The difference between the bid and asked prices represents the dealer's gross profit on the transaction.

The market rate reflects changing conditions in the supply of and demand for bills. When the supply of bills offered is larger than buyers are willing to take at the quoted rate, the tendency is for the market rate to rise (price to fall) and vice

versa. The bill rate is a sensitive interest rate, rising and falling in accordance with the ebb and flow of short-term funds in the market. For this reason, the market rate on bills has become one of the most significant indicators of ease or tightness in the money market.

An institution with funds to invest has alternative outlets other than Treasury bills. Treasury certificates usually mature within nine to twelve months from the date of issue, and there is a wide choice of maturities among other Government securities, namely, notes and bonds. Consequently, institutional investors weigh the liquidity advantage of bills against the greater income usually provided by longer maturities. The spread between the market rate on bills and the rates on longer maturities is therefore an important factor influencing the market demand and supply of bills.

OWNERSHIP PATTERN

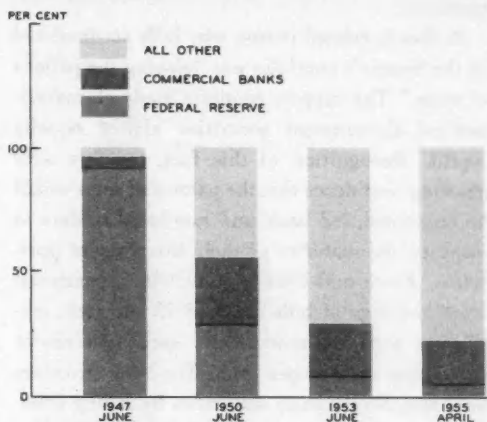
Many institutions include Treasury bills in their investment portfolios. Sufficient data are available from the Treasury ownership survey and commercial bank data to give some picture of the structure of the market.

By institutional groups

The market for Treasury bills is dominated by institutions: the Federal Reserve, commercial banks, and the "all other" group, as previously described. In April 1955, of \$19.5 billion of bills outstanding, the Federal Reserve System held less than 5 per cent; commercial banks, about 18 per cent; and the "all other" group, about 78 per cent. The pattern of ownership among these institutional groups, however, has changed considerably.

In the early post-war period, about 90 per cent of the outstanding bills were held by the Federal Reserve System. Following the unpegging of the bill rate in July 1947, there was a steady and per-

OWNERSHIP OF TREASURY BILLS*



SOURCE: TREASURY OWNERSHIP SURVEY
*EXCLUDES MINOR AMOUNTS HELD BY MUTUAL SAVINGS BANKS AND INSURANCE COMPANIES

sistent decline in the proportion of outstanding bills held by the System. Commercial banks increased their bill holdings substantially, but the most marked rise was in the holdings of the "all other" group. In the past few years the latter group has held the bulk of the outstanding bills.

A dominant factor determining the ownership pattern in the early post-war period was continuation of the policy of maintaining the wartime structure of interest rates. Under this policy, the Federal Reserve System stood ready to buy bills at $\frac{3}{8}$ of 1 per cent discount, and give the seller the option of repurchasing bills at the same rate at any time before maturity.

System accumulates bills. It is not surprising that under this policy the Federal Reserve gradually accumulated most of the outstanding bills. Banks faced with the problem of acquiring substantial amounts of reserves throughout the war and early post-war period chose the cheaper method. They sold Treasury bills which yielded only $\frac{3}{8}$ of 1 per cent. Thus bills purchased by commercial banks and others at the time of origi-

nal issue soon found their way into the System's portfolio.

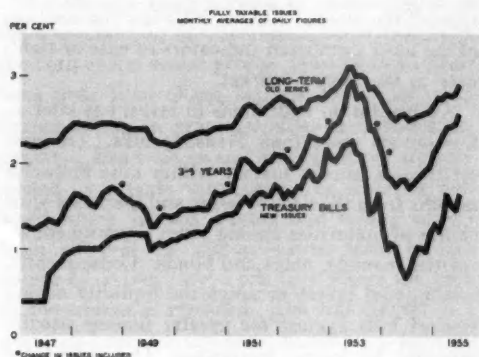
A closely related reason why bills accumulated in the System's portfolio was "playing the pattern of rates." The support program made all maturities of Government securities almost equally liquid. Recognition of this fact, together with growing confidence that the pattern of rates would be continued, led bank and non-bank holders to lengthen the maturity of their Government portfolios. From mid-1944 to mid-1946, commercial bank holdings of bills dropped 75 per cent, certificates were up moderately, and Government bonds rose over 50 per cent. Non-bank investors were lengthening their maturities by selling intermediate and buying long-term bonds. This movement toward longer maturities pushed additional amounts of bills and other short-term Governments into the Federal Reserve.

The war and early post-war periods reflected the strong influence of the pattern of interest rates on the willingness of investors to hold Treasury bills. The sacrifice in earnings from holding bills was too great, particularly in view of the liquidity of longer maturities under the support program. By mid-1947, out of a total of \$15.8 billion of bills, the System held \$14.5 billion; commercial banks, \$800 million; and other investors, \$500 million.

Shift to bank and non-bank holders. In July 1947, the Federal Reserve terminated its policy of standing ready to buy bills at $\frac{3}{8}$ of 1 per cent. The market rate on bills moved up rapidly, reaching almost 1 per cent by the end of the year. The rate on Treasury certificates also moved upward in the latter part of the year — from $\frac{7}{8}$ to over 1 per cent.

The response of commercial banks and non-financial investors to the rising bill rate was prompt. In the second half of 1947, commercial

YIELDS ON UNITED STATES GOVERNMENT SECURITIES



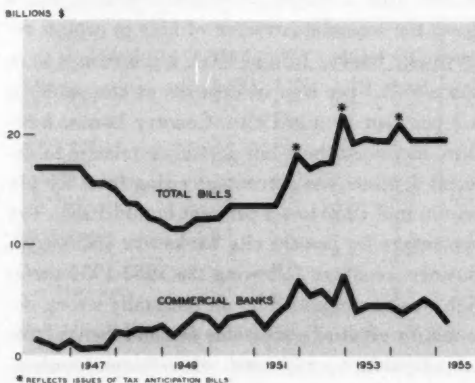
banks added \$1.3 billion to their holdings and other investors added a billion dollars. Federal Reserve holdings declined \$3.1 billion, reflecting in part the redemption of some outstanding bills by the Treasury.

One of the most pronounced changes in ownership in the post-war period was the almost steady rise in bills held by the "all other" group. Bill holdings of these institutions rose from about \$500 million in mid-1947 to nearly \$15 billion in May 1953. Bills purchased by this group were supplied mainly from the System's portfolio and also by an increase of approximately \$5 billion in bills outstanding.

Several developments explain this marked shift of bills from the System to non-bank investors. The System reduced its holdings as a means of combatting inflationary pressures which persisted during most of the period 1947-1953. A rising bill rate and narrowing spread between short- and longer-term rates made bills more attractive to investors. A third factor was the growing volume of temporary funds available for investment. Corporate earnings were rising and corporations were

faced with the problem of accumulating increasing amounts to meet larger dividend, interest, and tax payments. A generally growing volume of corporate, state, and municipal security issues provided proceeds temporarily which might be invested pending final disbursement. Dollar balances held by foreigners in United States banks also increased substantially during the period. Treasury bills are well suited for the investment of such temporary funds. Also, the practice of investing temporary funds is apparently becoming more widespread among non-bank institutions. Finally, termination of the policy of supporting the prices of Government securities, in the spring of 1951, restored to bills their traditional advantage of liquidity over longer maturities.

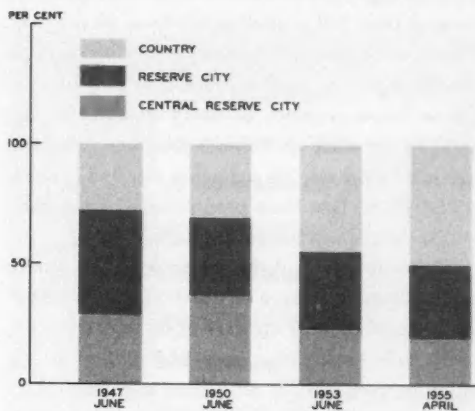
TREASURY BILLS OUTSTANDING AND HOLDINGS OF COMMERCIAL BANKS



Among member banks

Looking behind these large institutional groups to the holdings of commercial banks, one finds considerable variation in policy with respect to holding bills. Member banks, which in recent years have held about 90 per cent of the total bills owned by all commercial banks, show variations of pol-

MEMBER BANK BILL HOLDINGS, UNITED STATES



icy both by class of bank and among Reserve Districts.

Class of bank. Member banks, for purposes of reserve requirements, are classified into three groups: central reserve city, reserve city, and country banks. Roughly, these three classifications represent the larger, the medium-size, and the smaller banks, respectively.

In April of this year, country banks, with 38 per cent of member-bank deposits, accounted for 49 per cent of member-bank bill holdings. Reserve city banks, with 39 per cent of the deposits, held 30 per cent of the bills, and central reserve city banks, with 23 per cent of the deposits, held 21 per cent of the bills. This pattern of ownership is considerably different from that which prevailed during the early post-war period. Prior to mid-1951, bill holdings of these three groups of banks were roughly equal in amount and generally moved in the same direction.

The most significant change in the distribution of bills among these classes of banks occurred in

the last half of 1951. During this period, reserve city and country banks more than doubled their bill holdings, but central reserve city banks increased their bill portfolios less than 20 per cent. There was a sharp reduction in bill holdings in the latter part of 1952 and the early part of 1953 as the System's policy of credit restraint put increasing pressure on reserve positions. Percentage-wise, however, the reduction was less in country banks, so that their proportion of total member-bank holdings has continued to rise.

The explanation of the relatively sharp rise in bill holdings of reserve city and country banks in the last half of 1951 appears to be primarily twofold. Bills outstanding rose \$4.5 billion in the latter part of 1951 — \$2 billion in regular bills and \$2.5 billion in tax anticipation bills which matured in the first half of 1952. The tax anticipation issues were attractive to banks because they could pay for their own purchases and those made for their customers by crediting the Treasury's tax and loan account. The only immediate drain on their funds was the additional reserve required to support the newly created deposits. Reserve city and country banks apparently purchased substantial amounts of these tax anticipation bills. That this was a factor is indicated by the sharper rise in reserve city and country bank holdings than in central reserve city banks during periods when tax anticipation bills were issued followed by sharper declines in the holdings of these groups in periods when tax anticipation issues matured. Even so, this does not explain why country banks and, to a lesser extent, reserve city banks continued to hold more bills than central reserve city banks after the tax anticipation issues were retired. Another factor was the termination of the System's policy of supporting the prices of Government securities in the spring of 1951. This made longer maturities less liquid and apparently

affected the investment policy of the smaller banks more than that of the larger money-market banks. Finally, the practice of investing at least a part of excess reserves in bills seems to be gradually spreading among country banks.

Member-bank holdings of bills relative to demand deposits vary rather widely not only among classes of banks but also over time. In mid-1947, bill holdings of reserve city member banks equalled 1 per cent of their demand deposits; the percentage was slightly less for central reserve city and country banks. Both bank and non-bank investors were unwilling to hold bills in quantity when the yield was only $\frac{3}{8}$ of 1 per cent. By 1950, central reserve city banks had built up their secondary reserve of bills to 4.7 per cent of demand deposits, and reserve city and country banks held 3.3 and 3.6 per cent, respectively.

The strong demand for credit in early 1953 together with a policy of credit restraint pulled down the secondary reserve of bills in central reserve city banks. In mid-1953, bill holdings were down to 3.3 per cent of deposits as compared to 4.7 per cent in mid-1950. Country banks, however, increased their bill portfolios relative to demand deposits, the percentage rising from 3.6 per cent in mid-1950 to 4.9 per cent in mid-1953. The percentage for reserve city banks was unchanged. Business recovery following the 1953-1954 recession was accompanied by an unusually strong demand for credit. To meet this demand, banks have been liquidating bills and other Government securities. By April 1955, central reserve city and reserve city banks had reduced their secondary reserve of bills to about 2 per cent of demand deposits; the percentage for country banks had dropped to 3.8 per cent.

Bill holdings have also declined in recent years relative to member-bank reserve balances. In mid-1950, bills held by both central reserve city

and country banks were around 25 per cent of their reserve balances, while that of reserve city banks was about one-fifth. By April 1955, bill holdings of central reserve city and reserve city banks had declined to only 11 per cent of reserve balances, while those for country banks had risen to 27 per cent.

By Reserve District. Member-bank bill holdings relative to demand deposits vary rather widely among Reserve Districts. In April of this year, the ratio of bills to demand deposits ranged from a high of 4.9 per cent in the Kansas City District to a low of 1.9 per cent in New York. Boston and Philadelphia were near the low with ratios of only 2 per cent. Districts other than Kansas City with high ratios were Atlanta, Dallas, and Richmond.

MEMBER-BANK BILL HOLDINGS
AS PERCENT OF DEMAND DEPOSITS
BY RESERVE DISTRICT

Federal Reserve District	As of June				April 1955
	1947	1950	1951	1953	
Boston	0.7%	2.3%	3.8%	3.4%	2.0%
New York	0.6	4.2	4.0	3.4	1.9
Philadelphia	1.8	3.9	3.6	2.5	2.0
Cleveland	0.5	3.9	4.0	4.3	2.7
Richmond	0.8	2.8	3.7	3.7	3.1
Atlanta	0.4	2.6	2.4	5.0	4.3
Chicago	1.6	5.4	3.6	4.0	2.4
St. Louis	0.5	2.7	2.4	4.6	2.3
Minneapolis	0.7	2.1	1.2	3.4	2.7
Kansas City	1.4	4.9	4.8	6.8	4.9
Dallas	0.7	4.3	4.2	5.1	3.7
San Francisco	1.1	2.1	1.8	2.4	2.5

From mid-1950 to mid-1953 the ratio of bills to demand deposits increased in most of the Reserve Districts. The only exceptions were Chicago, New York, and Philadelphia. Member banks in the Atlanta and St. Louis districts nearly doubled their ratios of bills to demand deposits, and rather large increases occurred in the Boston, Dallas, Kansas City, Minneapolis, and Richmond districts.

This rise in bill holdings relative to deposits

MEMBER BANK BILL HOLDINGS,
UNITED STATES (APRIL 1955)
Percentage distribution by Reserve district



from mid-1950 to mid-1953 occurred during a period of loan and deposit expansion. For one thing, there was a substantial rise in the volume of Treasury bills outstanding during the period. Then, too, certain developments made bills more attractive to commercial banks. The market rate on bills rose significantly during the period and the spread between the rates on bills and longer maturities narrowed considerably. The reduced liquidity of longer-term Government securities following termination of the support policy and the sharp rise in loans relative to holdings of Governments probably pointed up the need for greater liquidity.

Bill holdings relative to deposits were lower in

nearly all districts in April of this year than in mid-1953. One reason is the very strong demand for credit since the fall of 1954, forcing many banks to sell Government securities in order to meet the loan demands of their customers. Until recently, the yield on bills has been less attractive, the market rate averaging less than 1 per cent in 1954 as compared to 1.9 per cent in 1953.

PERCENTAGE DISTRIBUTION OF
MEMBER-BANK BILL HOLDINGS
BY RESERVE DISTRICT

Federal Reserve District	As of June 30				April 1955
	1947	1950	1951	1953	
Boston	3.8%	2.9%	5.3%	4.3%	3.6%
New York	20.8	31.7	33.3	24.3	19.7
Philadelphia	9.9	5.2	5.1	3.3	3.7
Cleveland	3.9	7.4	8.7	8.5	7.7
Richmond	3.9	3.3	4.7	4.4	5.4
Atlanta	2.0	3.4	3.5	6.9	9.5
Chicago	25.4	21.4	15.7	15.9	13.7
St. Louis	2.4	2.9	2.7	4.9	3.6
Minneapolis	2.2	1.5	.9	2.2	2.6
Kansas City	8.4	7.2	7.3	9.9	10.4
Dallas	4.2	7.0	7.1	8.4	9.1
San Francisco	13.1	6.1	5.7	7.0	11.0

There have been some marked changes in the post-war period in the distribution of member-bank bill holdings among Reserve Districts. The New York district usually accounts for the largest percentage of total member-bank holdings, followed by Chicago. These two districts accounted for over one-half of the total in mid-1950, but only one-third in April of this year.

The proportion of the total held by member banks in the Chicago and Philadelphia districts has declined almost steadily. In April 1955, member banks in the Chicago District held only 14 per cent of the total as compared to 25 per cent in mid-1947. The decline in the Philadelphia District was relatively greater — from 10 per cent in mid-1947 to 4 per cent in April 1955.

On the other hand, striking increases have occurred in some districts, notably Atlanta, Dallas,

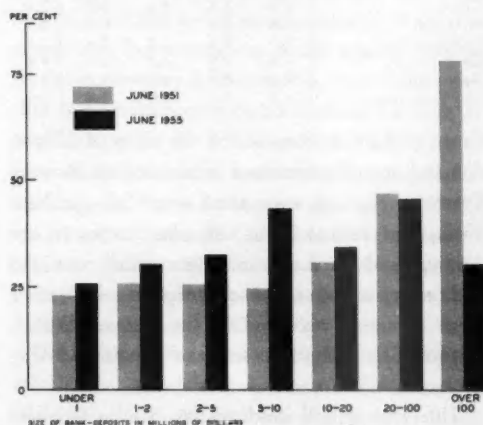
and Cleveland. The percentage held by member banks in the Atlanta District has risen steadily — from 2 per cent in mid-1947 to 10 per cent in April of this year. The rise in the Dallas District also has been large, and the proportion held in the Cleveland District has almost doubled during the same period. More moderate increases have occurred in the Kansas City, Richmond, and St. Louis Districts.

Third District

A larger number of member banks in the Third District held bills at the end of June this year than in mid-1951 — over one-third as compared to 28 per cent in 1951.

Nearly one-half of the banks with total deposits of \$20-100 million held bills in mid-1955, and 43 per cent of those with deposits of \$5-10 million. Fewer of the small banks hold bills; only 26 per cent of those with deposits under \$1 million owned bills at mid-year. The most significant increases since 1951 in the number of banks holding bills occurred in the \$2-5 million and \$5-10 mil-

PERCENTAGE OF BANKS HOLDING BILLS, THIRD DISTRICT MEMBERS



lion size groups. The only size group to show a decrease was the larger banks with deposits of over \$100 million.

The declining importance of bills in the portfolios of the larger banks, not only in this district but throughout the country, reflects in part the liquidation of Governments to meet the pressure on reserves arising from the sharp expansion in loans which has accompanied the recovery of business from the 1953-1954 recession. Such pressures tend frequently to converge on the larger banks in the money-market centers. It may also reflect greater reliance by the larger banks on other methods of adjusting their reserve positions.

The larger banks are more apt to use the Federal funds market than the smaller banks. There is usually some arrangement in the principal money-market centers for bringing together banks in need of reserves and banks with excess reserves to lend. The Federal funds market enables banks with reserve deficiencies to borrow excess reserves of other banks. Borrowed funds are usually repayable the following day, and the rate is almost always below the discount rate of the Reserve Banks. The rate is high, of course, when the supply of reserve funds offered in the Federal funds market is small relative to the demand and vice versa. Finally, the larger banks may rely more on borrowing from the Reserve Banks to meet short-term reserve deficiencies than the smaller banks.

Even though many district member banks hold bills, a large part of the total is lodged in the larger banks. Banks with deposits of over \$100 million held 61 per cent of the district total in mid-1951 and nearly 50 per cent in mid-1955. The medium- and smaller-size groups held a larger part of the total this year than in 1951, however. The largest increase, percentagewise, was in banks with total deposits of \$5-10 million;

increases occurred also in the \$10-20 million, \$2-5 million, and \$1-2 million groups.

CONCLUSIONS

Receipts flowing into large business firms and other institutions are usually not closely geared to the outflow of expenditures. Business transactions and Treasury operations are constantly shifting funds among institutions, some gaining and others losing funds. This creates the problem of how income can be derived from funds temporarily accumulated in excess of current needs and yet have funds available for meeting temporary shortages. The need is for an investment which yields income but which can be readily converted into cash without loss of principal. The Treasury bill usually fills this need quite well. The bulk of the bills outstanding in the post-war period has been held by three main groups — The Federal Reserve System, commercial banks, and non-financial institutions. The latter two have relatively high liquidity needs, and the Federal Reserve System has found the Treasury bill an appropriate means of injecting funds into or withdrawing them from the market.

The structure of the bill market has undergone marked changes in the past two decades. Prior to the war, commercial banks usually held most of the outstanding bills. During the war and early post-war periods, the bulk of the bills moved into the System's portfolio, investors being unwilling to hold securities that yielded only $\frac{3}{8}$ of 1 per cent. Unpegging the bill rate in July 1947 was followed by a persistent rise in the market rate. Bills became more attractive to investors, and the bulk of the outstanding supply gradually moved into the portfolios of non-financial institutions.

In the past few years there has been a tendency for commercial bank holdings to become more widely distributed. The medium- and smaller-size

banks have increased their proportion of total bank holdings, while that of the large banks has declined. This may reflect in part a tendency for

the larger money-market banks to rely more heavily on other methods of adjusting their reserve positions.

A MID-SEASON REPORT FROM THE FARM

A diversified agricultural economy such as ours in this Third Federal Reserve District gives farmers their best insurance against adverse growing conditions and the wide fluctuations in market prices so frequently encountered. This aspect of crop diversification has been severely tested in recent months. For one thing, the growing season to September 1 has been marked by weather extremes seldom equaled in the past. And in local markets, demand and prices for many of the products raised on Pennsylvania, New Jersey, and Delaware farms have been anything but stable.

County farm agents with whom we have discussed the ups and downs of the current season describe it as among the most erratic they have experienced. In the opinion of these specialists some of our farmers will make a little money this year. Others may not do so well. But for most farmers, except the few who put "all their eggs in one basket," this season's final returns may be better than the extremes of weather and unstable markets seemed to indicate.

"Too much weather"

Some crops grown in this area develop best with high temperatures; others prosper most when there is a lot of moisture. So far, no one can deny that we have had a superabundance of both. Early-

season growing conditions were generally good, but July and August brought just "too much weather." In some cases, crop losses from the July drought were severe. Yields were sharply reduced and quality was lowered to a point where market returns sometimes scarcely paid for the cost of planting and harvesting. Then, in August, the two hurricanes took their toll in wind damage and floods. The second storm ran up a big repair bill for farmers in some eastern counties where private roads washed out, crops drowned, and fields eroded with a heavy loss in top soil. The best that can be said of hurricanes "Connie" and "Diane" is that they broke the drought and gave some of the later crops a chance to recover.

Early field crops fared rather well

Grain crops like wheat, oats, and barley yielded average or better in most parts of this district. Quality generally was high. In many counties the first cutting of hay also was good, and farmers managed to cure and store it with a minimum in losses. As things turned out, this was a real "break" because they soon found themselves feeding hay in place of grass on the burned-out pastures. Moreover, for some of our farmers there was no second hay crop worth harvesting. Field corn was off to a poor start but has improved

since the rains and may make a fair crop after all.

Many vegetable growers have had a rough time

Perhaps the hardest hit among vegetable crops were the tomatoes ripening at mid-season. These included both fresh-market and processing varieties. In some counties, yields ranged from 3½ to 5 tons an acre, compared with normal harvests of 10 tons and more. According to the county agents, contract prices on tomatoes for processing were not too bad, but low yields and generally poor quality brought small returns to the growers. Beans and some other crops that survived the drought in July were revived by August rains only to be damaged by disease that seemed to spread rapidly with the sudden change from too dry to excessively wet weather. The main potato crop is still in the ground so it is hard to evaluate at this point. But if the recent growth of vines means anything, the tubers may be small and loss from rotting could be considerable in the wet soil. Sweet corn showed some improvement, following a bad start when the ears filled poorly. Early vegetables like asparagus and onions helped make it possible for growers to salvage something from an otherwise rough season.

Tobacco has been damaged

In Lancaster County, tobacco is another cash crop that has been injured by storms and generally adverse weather conditions. Some fields were flooded in the backwash of hurricane Diane and here the losses are said to be extremely heavy. Elsewhere plant disease — notably "wildfire" — has spread rapidly since the rains. There is little the farmers can do to combat this disease except cut the tobacco and get it into drying sheds as rapidly as possible. The final outturn of the crop

remains very much in doubt, but it is clear that production will be something less than the optimistic early-season forecasts seemed to indicate.

Orchard fruits are most promising

Some varieties of early peaches were too small because of insufficient moisture, and in the southeastern counties they had to be harvested in a big hurry before the winds of hurricane Connie reached them. So, for a time, the markets were over-supplied and prices suffered accordingly. All the later varieties seem to be yielding well and the quality of the fruit has improved considerably. Peach growers may have little cause for complaint once the full harvest is in. About the same situation has prevailed in the case of summer apples. Fruit growers generally count themselves very fortunate that wind damage was relatively light and few trees suffered permanent damage. Farmers with fall apples are looking forward to a crop very little smaller than last season's and are greatly encouraged by the manner in which most varieties are coloring and sizing. There is a good demand in prospect from the manufacturers of sauce, butter, and other apple products. With high-quality fruit probable, the market for packaged apples should be at least as good as last year.

Dairymen have not done too badly

Low milk prices are a chronic complaint of the dairy farmer, and so far 1955 has not been much different from any other recent year. Milk demand, however, has been fairly steady; surpluses in local markets have not been too severe; and most dairymen may make a little money. They have been, and still are, working hard to increase efficiency. Quality in most herds is improving as low producers are eliminated in the culling process. And some substantial expenditures have been made for new and up-to-date dairy equipment.

These efforts are bringing rewards in the way of slightly higher profit margins. Operations this season, however, have been made more difficult because of the heavy supplementary feeding necessary when pastures failed in July. Dairy farmers who normally meet the bulk of their feed needs must purchase a little more this year; those who do not raise nearly enough hay and silage will have to buy a great deal of dairy rations for the coming winter.

This has been a much better year for poultry

The poultry business has staged a remarkable comeback in recent months. Broiler markets are much better than last year, and prices are far enough above production costs to insure profitable operations. Feed costs have decreased a little and poultrymen hope that they may go lower. Egg markets, too, are decidedly stronger than in the spring and early summer, and poultrymen are encouraged. Flocks of both broilers and layers were sharply reduced last fall and winter, but they are building up now and it looks as though our poultrymen will be considerably better off financially than they were in 1954.

Price weakness persists and markets are spotty

The over-all trend of farm prices in recent months has been downward nationally and locally. In this district, market demand has fluctuated widely since the spring. Earlier, beef prices were low but they have staged some recovery. Demand for hogs has been weak right along because of heavy supplies. Poultry and egg markets have been in the strongest position in the past two months and give some promise of continuing so for a while. Offerings of the season's first peaches were too heavy to be absorbed; but in more orderly mar-

keting the later ones, including the bulk of the crop, have brought considerably higher prices. One thing helping local growers is the fact that market competition has been reduced by the loss of a large part of the southern peach crop this year. Market-wise, the vegetable growers have been in the worst spot. Their problem has been the fact that early summer prices were low. And that was when they had their largest volume and highest quality. Later, with greatly reduced volume and lowered quality, it was very hard to reach a break-even point for the season as a whole.

Farm purchasing power is unlikely to increase this year

Cash income from marketings in each of the three states included in this district ran close to 1954 levels through mid-year. In that period, receipts from crops were showing moderate gains while income from livestock and livestock products was trailing somewhat. This situation may be reversed, at least temporarily, in coming months partly because of reduced yields and lowered quality of some mid-season crops. In any case, total cash income in 1955 is unlikely to be high enough to raise the purchasing power of farmers because most production costs have remained rigid.

Purchased feeds are about the only expense item that has decreased in recent months. Labor costs remain high and in the skilled category they have even increased a little. Fertilizer and insecticides continue expensive and local farmers may have to use larger quantities of both to re-build washed-out fields or to fight plant disease encouraged by unfavorable growing conditions. Equipment and machinery costs have increased. For those farmers who are buying tractors, or cold-wall tanks for the milk house, or are installing irrigation systems, these are big-cost items that must be reckoned with.

CURRENT TRENDS

Most business indicators continue to push upward. Yet, the business climate seems a little different. Perhaps it is just that we are now accustomed to increases and the plus signs do not get so much attention as a few months ago. More likely it is that the increases are not so large now. Our rate of advance has probably slowed somewhat.

This is natural enough. Gross national product in the second quarter of this year was \$27 billion higher than the low point touched a year ago. Growth of this kind is more than we can normally expect from increased efficiency and new workers. What the economy has been doing is making up for the ground lost during the downturn in late 1953 and the first six months of 1954. Much if not all of that ground has been recovered.

This does not mean that we should merely turn our efforts to keeping just what we have. Increases in income and employment are still desirable — even necessary. It may mean, however, that we might expect a less spectacular rate of advance.

Employment in Pennsylvania lags

If, as seems to be the case, the nation as a whole has made up the ground lost during the recession, this does not hold true in all sections. In Pennsylvania, for example, employment is not back to where it was in 1953. The fact is Pennsylvania employment in July of this year was 5 per cent below the level reached two years ago — though 2 per cent above July 1954.

Why should Pennsylvania — the second largest industrial state — trail behind the nation? One reason is just that — Pennsylvania is an industrial state and employment in industry has not come back to where it was in 1953, even nation-

ally. Industrial employment weighs more heavily in Pennsylvania, so total employment here suffers more of a drag when the factory sector lags.

But this is not the whole story. Employment in Pennsylvania factories was off 10 per cent from July 1953, whereas for the nation as a whole, employment in manufacturing was down less than 5 per cent. In other words, employment in Pennsylvania industries has not recovered so fast as in the rest of the nation.

EMPLOYMENT IN NON-AGRICULTURAL LINES Percent Change July 1953 - July 1955

	Pennsylvania	United States
Total	- 5	- 0
Mining	-30	-12
Contract construction	- 2	- 3
Manufacturing	-10	- 4
Wholesale and retail trade	- 0	+ 2
Government	+ 3	+ 5
Other	+ 0	+ 1

As can be seen in the preceding table, industry is not the only category in which employment is coming back slower here than in the rest of the nation. The fact of the matter is, only employment in contract construction shows to advantage in Pennsylvania as compared with the nation.

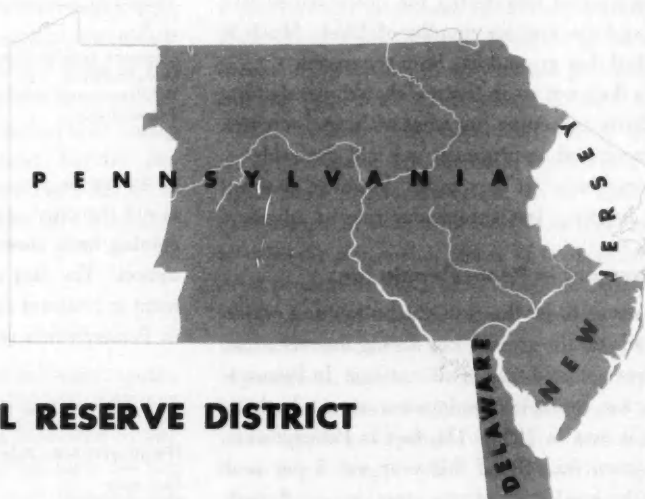
PERCENT CHANGE IN EMPLOYMENT BY LABOR-MARKET AREA (Pennsylvania, July 1953 - July 1955)

Lancaster	-0
Lehigh Valley	-1
Reading	-2
Harrisburg	-3
Philadelphia	-3
York	-3
Altoona	-4
Johnstown	-4
Erie	-5
Scranton	-6
Pittsburgh	-6
Wilkes-Barre	-7

Within Pennsylvania the story is pretty much the same. Not one of the twelve labor market areas has broken through its July 1953 level of employment. The Lancaster area is closest to where it was two years ago, but all of the other areas are more than 1 per cent below 1953.

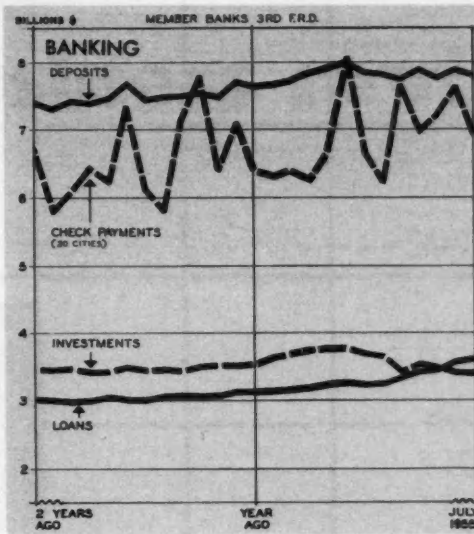
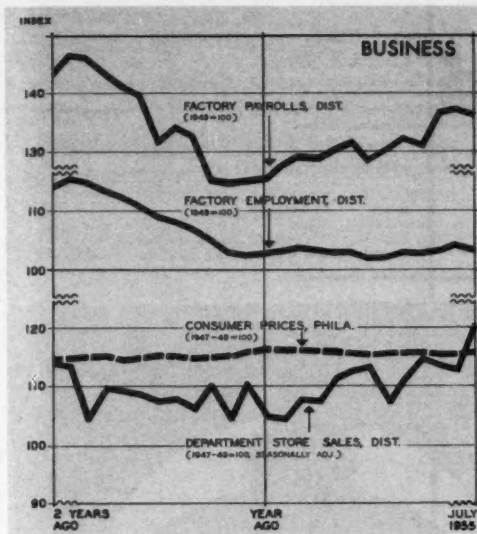
It would be comforting to be able to say that all this means that Pennsylvania is an older indus-

trial area that responds more slowly to changes in the general business environment. Though comforting, this conclusion would not be entirely accurate. Pennsylvania reacted rapidly to the decline in business activity in late 1953 and 1954; in fact, the decline here was sharper than nationally. The evidence seems to indicate lethargy only on the way up.



THIRD FEDERAL RESERVE DISTRICT

FOR THE RECORD...



SUMMARY	Third Federal Reserve District			United States		
	Per cent change			Per cent change		
	July 1955 from		7 mos. 1955 from	July 1955 from		7 mos. 1955 from
	mo. ago	year ago	year ago	mo. ago	year ago	year ago
OUTPUT						
Manufacturing production...	-2	+5	+1	-5	+16	+10
Construction contracts*	+8	+5	+15	-5	+24	+29
Coal mining...	0	+36	+12	+4	+35	+19
EMPLOYMENT AND INCOME						
Factory employment (Total)...	-1	+1	-2	0	+6	+2
Factory wage income...	-1	+9	+4			
TRADE**						
Department store sales...	+7	+14	+5	+9	+11	+6
Department store stocks...	0	+7		0	+4	
BANKING						
(All member banks)						
Deposits	-1	+2	+4	+1	+5	+5
Loans	+1	+15	+11	+1	+15	+10
Investments	0	-4	+1	0	0	+5
U.S. Govt. securities...	0	-3	-1	+1	-2	+4
Other	-1	-6	+7	0	+7	+11
Check payments...	-9†	+8†	+5†	-9	+4	+6
PRICES						
Wholesale	0†	0†	0†	0	0	0
Consumer	0†	0†	0†	0	0	-1

*Based on 3-month moving averages.

**Adjusted for seasonal variation.

120 Cities
†Philadelphia

LOCAL CHANGES	Factory*				Department Store				Check Payments		
	Employ- ment		Payroll3		Sales		Stocks				
	Per cent change July 1955 from		Per cent change July 1955 from		Per cent change July 1955 from		Per cent change July 1955 from		Per cent change July 1955 from		
	mo. ago	year ago	mo. ago	year ago	mo. ago	year ago	mo. ago	year ago	mo. ago	year ago	
Allentown...	0	+ 5	+ 2	+ 19						- 6	+ 15
Harrisburg...	+ 1	+ 3	+ 4	+ 12						- 10	+ 4
Lancaster...	+ 2	+ 6	+ 2	+ 12	+ 6	+ 13	- 6	+ 5	- 7	+ 7	
Philadelphia...	- 1	- 1	- 1	+ 4	- 22	+ 13	- 3	+ 7	- 10	+ 7	
Reading...	- 3	+ 1	- 2	+ 9	- 11	+ 20	- 11	+ 3	- 11	+ 10	
Scranton...	0	+ 2	- 2	+ 5	- 21	+ 6	- 4	+ 2	- 14	+ 6	
Trenton...	+ 1	+ 5	+ 10	+ 16	- 19	+ 16	- 6	+ 22	+ 5	+ 4	
Wilkes-Barre	- 3	+ 4	- 5	+ 11	- 16	+ 18	- 6	+ 21	- 17	+ 4	
Wilmington...	+ 1	+ 10	+ 1	+ 18	- 15	+ 14	+ 4	+ 15	- 17	+ 23	
York.....	- 1	+ 2	- 8	+ 4	+ 4	+ 18	- 6	+ 4	- 11	+ 4	

*Not restricted to corporate limits of cities but covers areas of one or more counties.

